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#### ABSTRACT

Higher Horizons 100 is an articulated approach to compensatory education for four groups fo approximately 100 urban students in grades seven to nine. Working through an instructional team made up of teachers and other specialists, the program is designed to motivate and encourage individual youngsters to react to a student-centered educational program. This program, which places a high degree of reliance on proven inner-city methodologies, includes in its operational repertoire: small group instruction, intensive counseling, teacher feedback, and cultural activities. The actual make-up of the 100 instructional teams have varied somewhat over the course of the program's five-year history. During the 1970-71 year, both the make-up of each center's staff and the actual conduct of the instructional programs changed due to varying circumstances. The behavioral objectives of the programs were as follows: a significant increase in the mastery of language skills; a significant gain in writing skill ability; the achievement of a more realistic self-image toward school and society; and, the achievement of a better attendance record. The evaluation of the four team program was accomplished in terms of an overall pre-and post-test model. Test scores were obtained at the beginning and end of the school year. Gain scores were computed and assessed for statistical significance. (JM)



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HIGHER HORIZONS 100 1970-1971



**An Evaluative Report** 





# HIGHER HORIZONS 100 1970-1971

Evaluation Office Hartford, Connecticut November, 1971



## HIGHER HORIZONS 100 1970-1971

### BACKGROUND

In its original conception Higher Horizons, or HH 100 as it is commonly called, was established as a ninth grade urban center which was designed to demonstrate that some of the more saliant ravages of educational deprivation could effectively be corrected. Thus the program was focused on reading and communications skill remediation, which was supplemented in turn by a concentrated attack upon the improvement of other crucial skill areas, the development of student self concept, and a wider exposure to cultural and educational opportunities in the Hartford and New England areas.

#### STATEMENT OF NEED

In order to continually demonstrate that compensatory education can be effective at the secondary school level, HH 100 was designed as a program which would provide articulated language remediation, guidance services, and cultural exploration oriented around the following focal areas:

- 1. HH 100 was to provide an atmosphere in which experimentation, change, and program development could occur in response to the particular learning problems of one hundred selected disadvantaged students.
- Students were to be assisted not only to adjust to the regular school pattern, but to subsequent school and individual program modifications as these occurred.
- 3. Remediation for specific learning deficiencies would be provided and particularly in the areas of reading and in language arts.
- 4. Although cultural funds remain somewhat limited, available resources were used to expand the experiential background of the

- students beyond the out of school levels which are currently attainable.
- 5. The program must necessarily aim toward an improvement of student self-concepts. This must be done so as to facilitate the development of higher educational, vocational, and life goals.

#### SELECTION CRITERIA

Students who were selected for participation in the HH 100 program were in attendance at one of the following validated school areas, and at the indicated grade levels: Grade 9 at Weaver. HPHS, and HPHS Annex and grades 7-8 at the Barnard-Brown School. In addition all students had to meet a number of general criteria:

- 1. Students were generally of an "average" tested ability or were rated by their teachers as being students who could perform at an "average" level of achievement. The use of "average" test scores frequently included a verbal or a non-verbal Lorge-Thorndike T.Q. generally ranging from 90-110.
- 2. The recorded reading level for each member of the group had to to be from one to three years below the appropriate grade level. At Weaver High School, this criterion was expanded so as to include youngsters who fell five years below grade level.
- 3. The students were selected on the basis of emotional stability.

  In establishing this criteria, it was stressed that participants were not to be considered serious disciplinary problems.
- 4. The student age was kept relatively homogeneous. Generally speaking, youngsters at the ninth grade centers were excluded from participation if they were over two years older than the



usual placement level.

- 5. All students were screened and approved by their feeder school counselor. Here a wide degree of latitude was permitted in deviating from the stated criteria.
- 6. Flexibility in the selection criteria was stressed so that all counselors could make additional recommendations where special cases were indicated. All recommendations were, however, discussed with the appropriate HH 100 counselor and the team leader prior to the students' final notification of acceptance.
- 7. Parental permission was required for participation in the HH 100 program. This approval tended to facilitate the home-school cooperation which had proven to be so successful during the past.

The ongoing development of the HH 100 model, coupled with its subsequent expansion to cover three additional target school areas, was largely based upon the longitudinal analysis of evaluative test data. These analyses included the following typical findings which have been extracted from the 1969-70 H.P.H.S. team evaluation:

- 1. An analysis of Metropolitan group test data produced evidence of significant mean gains in both Word Knowledge and in Reading over a one year intensive instructional period. Despite the absence of a control, the .01 level of significance demonstrated that HH 100 once again helped to substantially improve their measured reading achievement.
- 2. When pre and post scores on the <u>lowa Silent Reading Test</u> were compared, mean gains which were significant at the .01 level



were obtained for the boys, the girls, and the HH 100 group as a whole.

3. Significant gains in writing skill achievement were also recorded when these skills were measured by the <u>SRA Writing Skills Test</u>.

#### DESCRIPTION

In terms of its actual operations, HH 100 continued to represent an articulated approach to compensatory education for four groups of approximately one hundred urban youngsters. Working through an instructional team which was made up of teachers and other specialists, the program was designed to motivate and encourage individual youngsters to react to a student-centered educational program. This program, which placed a high degree of reliance on proven inner-city methodologies, included in its operational repertoire:

- 1. Small group instruction. Working in a "mini-house" setting were provided with the environment which was intended to evaluate students to relate intimately with instructional team members, and with this relationship reciprocated, to obtain adequate assistance to the solution of specific learning problems.

  Supported with the help of specialists and the counselor who was assigned to each center, the program was carried on to a large extent by team classroom teachers.
- 2. Intensive counseling. The school counselor, who was assigned only to youngsters and team on a full-time basis, was also responsible for the project's testing and for the coordination of the continued involvement of students, parents, and staff members in the planning and conduct of the program.



- 3. Teacher feedback. Through a continuing program of formal and informal gatherings, staff members are encouraged and helped to react, respond, and adjust to the needs of their pupils.
- 4. Cultural activities. In contrast to many program, cultural trips and experiences are pre-planned, coordinated through student participation, and evaluated as part of the instructional program.

The actual make-up of the HH 100 instructional teams have varied somewhat over the course of the program's initial five-year history.

Given this background there was, as could be expected, differences in staffs from center to center. During the 1970-71 school year each team was made up as follows:

- 1. H.P.H.S.: The team was composed of an English teacher, two specialists in language skill correction and development, science and math teachers, a project assistant, and a guidance counselor; the counselor was also the team's leader.
- 2. H.P.H.S. Annex: Here the team was made up of an English teacher, a specialist in language skill correction and development, a project assistant and a guidance counselor - team leader. At the Annex, subject matter instruction outside the language arts area was conducted by non-team teachers.
- Weaver High School: The Weaver High School team consisted of an English teacher, a social studies teacher, a reading teacher, a science teacher, a mathematics teacher, a guidance counselor, and a project assistant. At Weaver, the team leader was the English teacher.

4. Barnard-Brown: The City's first seventh -eighth grade team was comparable in makeup to the team at Weaver. At Barnard-Brown the reading teacher served as leader.

As the teams varied in their composition, so too did the actual conduct of the instructional programs. For example:

- 1. At Weaver, classes met four times rather than the normal five times each week, and on a rotating schedule due to an unavailability of classroom space. In place of the fifth period meeting, students were encouraged to take an elective with enrollments reported in art, music, business machines, and in Spanish.

  Dependent upon the availability of classrooms and teachers a number of students had also planned to take business and industrial arts electives beginning with the second trimester of the 1970-71 school year. The extent to which this activity was accomplished was not reported.
- 2. Because Weaver High School students were not assigned to electives in lieu of their fifth class meeting, those who did not select an elective were able to work with HH 100 teachers in one or more of the following areas: Obtaining extra help, working on individual projects, mini-courses in small group dynamics and achievement motivation, group counseling or an HH 100 team-monitored study hall.
- 3. In similar fashion, a few modifications of efforts were also reported in conjunction with the H.P.H.S. Annex program. Here, with the exception of language arts instruction and guidance services, all other areas of instruction were conducted by regular



classroom teachers.

4. At Barnard-Brown, and while the academic instruction was under team auspices another consideration was evident in the conduct of the program; this was the development of an operational model which could be implemented in each of the two middle schools as these would open during the 1971-72 school year. This particular model was a unique one in that it was to involve ungradedness and open space learning at the seventh and eighth grade levels.

#### BEHAVIORAL OBJECTIVES

In order to assess the effects of Higher Horizons in terms of measurable benchmarks, a series of behavioral objectives were developed together with specific measurement criteria. While these emerged primarily from original H.P.H.S. team operations, they were logically applied to the total Higher Horizons 100 program under the assumption that all HH 100 operations were generally comparable. Thus, the following statements and their measurement criteria can be reported as follows:

- 1. Objective. After having spent one year in HH 100 with its special emphasis on the mastery of language skills, the learner will achieve a statistically significant gain in measured reading achievement at the .05 level.

  Criterion. Gains will be measured by a group comparison of Iowa Silent Reading Test and by Reading subscores on the Metropolitan Achievement Test, administered in September and May of the school year.
- 2. Objective. After having spent one year in HH 100 with its special



emphasis on the mastery of language skills that learners will achieve a statistically significant gain in writing skill ability.

Criterion. This objective will be measured by the group comparison of SRA Writing Skill Test scores at the .05 level following administration in September and May of the school year.

3. Objective. After having spent one year in HH 100 with its concentrated emphasis on personal adjustment and academic improvement the learner should achieve a more realistic self image toward school and society.

Criterion. A pupil self-rating scale, which was constructed by the evaluation office, will be administered to students at the end of the school year. In addition, and if time permits, the scale will also be administered to an appropriate central population, and to a sample of HH 100 graduates at the tenth, eleventh and twelfth grade levels to ascertain if behavioral gains are being carried into successive years of high school.

4. Objective. Giving experience of varied activities and learning situations, the learner should achieve a better attendance record. Criterion. A percent of attendance will be calculated and will be used to compare HH 100 attendance with their eighth grade cumulative attendance records, and with ninth graders at HPHS at the end of the school year. A ten percent increase is expected.

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### EVALUATION

To test the efficacy of Higher Horizons in terms of its stated objectives, an extensive pre and post test model was utilized.

- 1. The Iowa Silent Reading Test, and the Word Knowledge and Reading subtests of the <u>Metropolitan Achievement Test</u> were administered in the fall and spring of the school year.
- 2. Similarly, the <u>SRA Writing Skills Test</u> was also administered during the same time period.
- 3. In late spring of the school year, teams developed various attitudinal questionnaires which were administered to assess behavorial
  changes occurring over the course of the HH program. This was
  done on an individual team basis.
- 4. These test data were subjected to a number of analyses, both on Higher Horizons as a whole program, and on an individual team basis; an approach which was employed for several reasons.
  - a. First, there was a desire to determine whether or not the overall HH program was meeting its specified objectives.
  - b. Secondly, it was necessary to look at individual team strengths and weaknesses as a basis for potential program modifications.

    Unfortunately, the unavailability of Annex and Barnard-Brown data during the period of test analysis September 1971 required that these teams be examined on what was largely a non-statistical basis. Thus, while it was possible to report all available school data, tests of significance could only be used for Weaver and H.P.H.S. Parenthically, because of the abundance of Barnard-Brown data, which was collected and

analyzed by counselor A. Ray Petty, III, the evaluation of the middle grade HH program is being issued as a separate document which will be available in the not-too-distant future.

Table 1 presents a comparison of mean Metropolitan Achievement Test scores which were collected over an approximate one year period.

TABLE 1
COMPARISON OF MEAN METROPOLITAN ACHIEVEMENT TEST SCORES BY TEAM, SPRING '70-SPRING '71

	Spring 1970 Spring 1971							~
Team & Subtest	Ŋ	Mean G.E.	S.D.	N	Mean G.E.	s.D.	Mean Dif.	Signif.
H.P.H.S.								
Word Knowledge	67	6.7	1.6	67	8.1	1.5	+1.2	• 03.
Reading	67	6.7	1.6	67	7.2	1.8	+ .5	.01
Arith.Computation		-	_		-	-	-	
Problem Solving		-	-		-	-	-	
W.H.S.								
Word Knowledge	81	6.6	1.7	81	7.1	1.5	+ .5	.01
Reading	81	6.3	1.8	81	5.9	1.8	4	.05
Arith.Computation	82	5.7	.8	82	6.1	7.6	+ .4	MS
Problem Solving	83	5.7	1.1	83	5.0	2.8	<b></b> 7	.05
Annex								
Word Knowledge	77	6.0	1.9	77	6.8	1.9	+ .8	.01
Reading	77	5.7	2.0	77	5.8	2.0	+ .1	ns
Arith.Computation	7 <b>7</b>	6.3	1.2	77	6,8	1.5	+ .5	.01
Problem Solving	77	6.1	1.7	77	6.9	1.7	+ .8	.01

The information reported in Table 1, together with a number of statistical analyses of the data, provided the following information:

- 1. In addition to the individual sub-score gains reported in the table, a comparison of H.P.H.S. with Weaver on the sub-scales of Word Knowledge and of Reading favored H.P.H.S. with differences which were significant at the .01 level. That is to say, the difference in scores between the two high schools could statistically be due to chance only 1 out of 100 chances. Note that for Reading, the Weaver decrease was also a significant one.
- 2. When the two school groups were compared on the subtest scores of Word Knowledge and Reading by sex, the differences were not significant.
- 3. In a similar fashion when the H.P.H.S. boys were compared to the Weaver boys on both subtests, differences favored H.P.H.S. and again at the .01 level.
- 4. When the girls were compared on the variable of Word Knowledge, the gains once again favored H.P.H.S., and at the .01 level. On the other hand, the difference between the two groups in terms of Reading scores was non-significant.
- 5. When H.P.H.S. boys were compared with H.P.H.S. girls in terms of Word Knowledge and Reading, differences were non-significant.

  Neither were differences significant when the Weaver boys when compared with Weaver girls on the same test variables.

To further validate objective 1 in terms of measured reading gains, the <u>Icwa Silent Reading Test</u> was also administered. Here, comparisons of mean achievement test changes are reported in Table 2.



TABLE 2
COMPARISON OF IOWA SILENT READING TEST SCORES BY TEAM, FALL 1970-SPRING 1971.

		Fall	1970 Sprin		1971		
Team & Subtest	N	Mean G.E.	S.D.	Mean G.E.	S.D.	Mean Diff.	Signif.
H.P.H.S.	89	6.1	1.2	8.2	1.6	+2.1	.01
W.H.S.	81	6.3	1.3	5.2	.8	-1.1	.01
Annex	73	6.4	1.5	7.1	1.9	+ .7	.01
				,			

Once again, a number of observations in addition to those reported in the table . were evident.

- 1. When the total H.P.H.S. team was compared with the Weaver Higher Horizons youngsters in terms of mean <u>Iowa</u> gain scores, the difference favored H.P.H.S. and exceeded the .01 level. Here the W.H.S. drop in scores was starkly apparent.
- 2. When all boys were compared with all girls on the <u>Iowa</u>, mean gain differences were not significant.
- 3. Conversely, when H.P.H.S. boys were compared with Weaver boys, again the difference in scores favored H.P.H.S. and at the .01 level. The same situation was also evident when H.P.H.S. girls were compared with the girls at W.H.S.
- 4. When H.P.H.S. boys were compared with girls from the same school girls on the <u>lowa</u>, the difference favored the girls at the .01 level.
- 5. Conversely, when Weaver boys were compared with their female classmates <u>Iowa</u> differences were not significant.



In addition to its focus upon the mastery of developmental reading skills, the Higher Horizons program was in its very essence oriented toward the correction of other aspects of language arts instruction as well. One of these aspects was instruction designed to help youngsters master the ability to communicate in writing. To investigate this program aspect Objective 2 was formulated, and with it a criterion which would examine group mean gains in terms of scores obtained from the <u>SRA Writing Skills</u>

Test. The data which was collected on this instrument during the September and May 1970-71 administrations is reported in Table 3, as follows.

TABLE 3

COMPARISON OF MEAN SRA WRITING SKILLS TEST SCORES, FALL 1970 - SPRING 1971

Fall		1970	Spring	1971				
Team	N	Mean % ile	S.D.	Mean % ile	s.D.	Difference	Significance	
H.P.H.S.	89	23.0	20.8	42.1	22.7	+19.1	.01	
W.H.S.	83	22.2	16.5	26.9	18.3	+ 4.7	.01	
Annex	71	22.9	17.9	24.4	20,3	+ 2.6	N.S.	

On the basis of the Table 3 analysis a number of findings were evident:

- 1. In looking at total team increases, the H.P.H.S. students amassed mean gains which were significant at the .01 level. At Weaver, and while gains were in evidence, these were relatively minimal.
- 2. When the H.P.H.S. boys were compared with the Weaver boys, gain differences favored the H.P.H.S. members and at the .05 level.
- 3. When girls were compared on a team by team basis, mean differences again favored H.P.H.S. at the .01 level.
- 4. On a within team comparative basis, the H.P.H.S. boys compared favorably with the H.P.H.S. girls. Here the differences were non-significant. At Weaver, the same comparison revealed that once again internal differences were non-significant.
- 5. While it was not necessary to the overall examination of data, there was an interest in determining whether the boys, as a group, did better than the girls in terms of writing skill development. Thus, the sexes were combined for H.P.H.S. and Weaver and were analyzed accordingly. Here, the results indicated that the differences were relatively non-existent.

In addition to the test data proper, Higher Horizons was also concerned with determining whether or not the program was actually reaching students in areas other than those which were purely academic. To examine this third objective, a Program Rating Form was constructed and this was admininstered to and collected from about 25% of the students at both H.P.H.S. and the Annex at the end of the 1971 school year. The actual form which



was used, and is reproduced on the following pages, was a modification of the Program Rating Form which had been developed originally by the evaluation office for use with the H.P.H.S. HH 100 program. This was subsequently modified by the inclusion of several additional items, as suggested by Mr. Chester Kennedy, at the H.P.H.S. Annex.

When the overall responses were tallied individual team patterns were quite similar and these were generally salutatory in nature and while a few students reported "some adverse affects" of the program, these were minimal; here less than a dozen students reacted to this particular rating category. Conversely, the vast majority of respondents reported that the program had helped them during the course of the school year.

In terms of the survey questions which asked that youngsters rate themselves on several school-associated characteristics, once again the reports were generally positive. And while there were no base figures to judge by, it did appear on the basis of self-reporting that the students were achieving a better measure of school acceptance then had perhaps occurred before.

In addition to the Program Rating Form proper, the H.P.H.S. team also administered the Form to a group of HH 100 "alumni" seniors. Since these were youngsters who had completed Higher Horizons three years ago, and were now progressing through the H.P.H.S. mainstream without additional team services, the long range reports on the program were of particular interest to the team members. This interest seemed to have been rewarded since:

 A vast majority of the youngsters reported that Higher Horizons had helped them, and on all of the queried variables. Of the fifteen items tallied, only four received indications of "some



## PROGRAM RATING FORM

#### Directions

Read each question carefully. Answer each question carefully. Answer each question by checking the blank which best describes your reaction to the question. Check only one blank for each question. It is not necessary to put your name on this paper.

		liuch	Some	None	Some Adverse Effects	Cannot Judge
Do y	you think Higher Horizons has bed you so far this year to:					
1.	Improve your reading ability?					
2.	Improve your study habits?					
3.	<pre>Improve your attitude toward learning?</pre>					
4.	Improve your classroom behavior?					
5.	Improve your out-of-class behavior?					
6.	Improve your getting along with your teachers?					
7.	Learn more about yourself?					
8.	Get specific help with your school work.					
9.	Get help in working out your personal problems?	-				
10.	Work toward a high school diploma?					
11.	Look forward to an education training beyond high school?					
12.	Identify some talents and interests which are other than academic?					-
13.	Expect to achieve at a higher level in school?					
Do 3	you think Higher Horizons has:					
14.	Increased your parents' interest in your school?					
15.	Improved your parents' interest in your school work?					un angularis replicare
How	would you rate yourself?	All th	e Most o	ime s	nly Ne ome imes	ver Cannot Judge
16.	I do my homework.					
17.	I do not disturb others in the class when they are working.					



adverse affects" and these were on a one and two student basis.

- 2. In terms of the self-rating items, the students generally agreed that the characteristics which seemed to be appropriate to school success had been achieved or were being followed "same" or "most of the time." While no validity check was attempted this year, previous reports collected from the team's counselor and teachers seemed to indicate that the student self-ratings had in the past been relatively fair and objective; there was no reason to doubt this contention during the present school year.
- the most helpful, the alumni like the present HH 100 students reported almost overwhelmingly that the most important and helpful part of the program was their English course. And while English received a vast majority of all the favorable ratings, it was not the one aspect of the program which the youngsters seemed to like particularly; instead of one item students reported a wide variety of both formal and informal program elements.

In addition to the self-reporting items, there were a number of other indications as reported by the H.P.H.S. team counselor, - and again no data were submitted - that grades for the alumni were running higher than for comparable groups of H.P.H.S. youngsters. This, too, had been substantiated in previous years but not during the period of the present study.



In looking over the suggestions for program improvement, items typically submitted by H.P.H.S., the Annex, and the H.P.H.S. alumni group have been listed as follows:

What part of Higher Horizons do you think has helped you most?

Nath, English.

I think that English and reading helped me the most.

liost of my subjects.

Everything.

You have more freedom and you are on your own most of the time.
You are treated like young adults.

My English class has helped me the most, thanks to lirs. White.

She was strict, and at first I dreaded going into her class. Today

I can say I really appreciated her class because she made us work

and learn.

What do you like least about the Higher Horizons program?

Reg. study because I don't care too much about reg. study.

Language Arts.

liath.

Transformational Grammar.

Nothing.

What suggestions could you make to improve Higher Horizons?

Every student should have a study hall every day at sixth period.

Get rid of \_\_\_\_\_\_.



Drop T.G.

Black Literature.

I feel the only suggestion I could give is to continue the Higher Horizons program.

I liked it the way it is.

Keep the teachers they have!

What do you like the most about the Higher Horizons program?

Because they made sure that you learned something before you left.

English.

More attention.

### PROBLEM AREAS

In addition to the evaluative findings a number of problem areas were reported.

- 1. H.P.H.S.: Once again, a lack of adequate funds to conduct optimal cultural activities was reported.
- Weaver High School: With the exception of the problem area relating to the availability of teachers and class spaces, no other problems were reported.



#### 3. Barnard-Brown:

- a. At the time school started in September, and with the exception of the math program, no individualized materials had been received by the team teachers. Consequently, it was necessary to improvise materials until mid winter when most of the ordered supplies arrived.
- b. Since no one person had been assigned responsibility for the language arts program, the team adopted the commercial Mott program, with team member becoming responsible for certain periods of pupil presentation. Although the team leader attempted to remedy the situation by giving various demonstration lessons, the program was familiar to only two team members. It also proved to be so unsuccessful that it was finally dropped in the middle of the year.
- c. The number of students with severe disciplinary problems who had been selected for the program caused an adverse effect to the overall instructional model. In essence, this was occasioned because a majority of the students did not meet selection criteria.
- d. There were a number of problems involved in attempting to develop a team approach to the Higher Horizons program. It was recommended by the team leader that teachers should be trained in teaming prior to the imagination of future programs.
- 4. H.P.H.S. Annex: No problem areas were reported.

In addition to the citation of individual team problems, it should be noted that there were also a number of administrative and logistical problems



associated with the conduct of the total program. These require early resolution if Higher Horizons is to operate as a coordinated program instead of as a series of teams working around individual goals, needs, and programs.

- 1. It should be determined at the central office administrator level what specific elements of program i.e. objectives, methodologies, evaluative techniques, etc. should apply to all team programs.
  Once this determination has been made, a designated individual should assume responsibility for the coordination of these program aspects.
- operations, a clarification should be obtained as to what program elements are under the principal's jurisdiction and which modification require central office clearance. Obviously under the present structure it is quite possible and probable that individual teams may vary considerably thus moving outside the overall purview of contemplated activities.
- 3. From an evaluator standpoint, each team must be examined as a separate entity and as part of an overall program. Only in this way can the potential problems of a given unit be prevented from contaminating the salutary results of the overall Higher Horizons program. This is particularly important when one considers that H.P.H.S., for example, has built up a reputation for accomplishment over the last six year period and would hardly want to be contaminated by other tangential failures.



## SUMMARY AND CONCLUSIONS

During its sixth year of successive operations, the concept of Higher Horizons was expanded substantially. From a beginning of one team at H.P.H.S., the program had grown so as to encompass Weaver High School, H.P.H.S. Annex, and a 7th and 8th grade center at Barnard-Brown School. Aimed at the intensification of language arts and other skill instruction, the program continued to be viewed as a viable media through which some 100 underachieving youngsters could be helped to improve their academic and motivational deficiencies.

The evaluation of the four team program was accomplished in terms of an overall pre and post test model. Here, the analysis of data revealed the following:

- 1. At H.P.H.S., W.H.S. and the H.P.H.S. Annex MAT Word Knowledge gain scores produce a significant high degree of mean improvement.
- 2. Reading scores showed mixed changes. At H.P.H.S., the gain level was highly significant; at the Annex there were slight, but non-significant gains; and at Weaver High School, Reading scores dropped approximately four months over the course of the instructional period.
- MAT mathematical sub scores, again change patterns differed. At the Annex, both Arithmetic Computation and Problem Solving gains were highly significant. At Weaver, there was a slight, but non-significant gain in Arithmetic Computation and a drop of approximately seven months in Problem Solving.

- 4. When the High School teams were further tested with the <u>Iowa</u>

  <u>Silent Reading Tests</u>, gains at H.P.H.S. and at the Annex

  were highly significant. At the same time, Weaver reported

  a drop of approximately 1.1 years; this too was highly significant.
- 5. In terms of writing skill mastery, and when mean percentiles were compared, each of the three high school centers showed differing amounts of gain. Gains at H.P.H.S. and W.H.S. were highly significant, while those at the Annex were relatively minor.
- only administered at H.P.H.S. and at the Annex. Response patterns revealed that a vast majority of the youngsters felt that Higher Horizons had helped them, and on all of the queried items. Similarly, a majority of the students also reported that the kinds of things that seem to be appropriate to school success had been achieved or were being followed "same" or "most of the time". Here, the essence of this reporting seemed to be that the program was providing the youngsters with the study and other non-academic skills which the students felt were required for more optimal school achievement.
- 7. A program rating form was also administered to a small sample of H.P.H.S. Higher Horizons alumni. They, like the present students, reported that the program had been helpful and a contributor to their continued schools success.
- 8. While several operational problems were reported, these were primarily of an operational nature. There were, however, some



recommendations made for overall program efficiency, particularly in the area of evaluation.

9. Data collected and analyzed on the Barnard-Brown 7th and 8th grade program was reported in a separate document.

In attempting to determine whether the Higher Horizons 100 program met the stated program objectives, the following can be reported:

- At H.P.H.S., and at the H.P.H.S. Annex each of the stated objectives related to measured achievement were met, and generally at a level exceeding the .05 criterion.
- 2. Similarly, both teams apparently achieved a more realistic self-image toward school and society as measured by the pupil self rating scale which were distributed under team auspicious.
- 3. At Weaver High School, gains in Word Knowledge, and writing skills exceeded the appropriate criteria.
- 4. At H.P.H.S. and at the Annex, evidence was submitted to suggest that the improvement of attendance had in fact been realized.

  From W.H.S. no data was submitted. Unfortunately, data submitted was of an actuarial nature and at the time of the evaluation could not be readily verified.

